REMARKS

Entry of this Amendment is proper under 37 CFR §1.116 if for no reason than to allow the Examiner to respond in order to clarify, for purpose of appeal, the specific rejection being maintained for each claim. Second, as explained in more detail below, the Examiner seems not to understand the significance of the plain meaning of the claim language for the embodiments of the present invention being defined by the claims, and it is necessary that the Examiner clarify this confusion prior to proceeding to appeal. Third, the Examiner seems to have presented a position on the record that is inherently contradictory, and this inconsistency needs to be clarified prior to appeal. Fourth, as further explained below, Naccache cannot be used as an anticipatory rejection for the claims listed by the rejection currently of record, since it clearly fails to show all elements of all of the claims (even in the original claim wording) that the Examiner alleges as anticipated by this reference.

As best can be deciphered from the Examiner's cryptic statement in paragraph 1 on page 3 of the Office Action ("The claim rejections are re-listed from original office action to address the amended claim 1."), in combination with the Examiner's statement in paragraph 10 on page 5 of the Office Action (" ... rejection for claims 1-36 stands"), Applicants speculate that the Examiner intends that the previous rejections for unlisted claims remain in place, even though the new rejection under 35 USC §102(b) provides a new listing of claims that includes only two active claims (e.g., 1, 25) and one canceled claim (e.g., 2, presumed by Applicants as being a typographical error in the rejection), and the listing of claims rejected under 35 USC §103(a) includes only claims 37 and 38. Thus, Applicants consider that the Examiner intended to address only the revisions to claim 1 submitted in the Amendment Under 37 CFR §1.111, filed October 30, 2003.

It is noted that, notwithstanding any claim amendments made herein, Applicant's intent is to encompass equivalents of all claim elements, even if amended herein or later during prosecution.

Claims 1, 3, 4, 7-38 are all of the claims pending in the present Application.

The Examiner objects to claim 19 because of the incorrect dependency shown. Applicants believe the above claim amendment corrects this error and requests that the Examiner reconsider and withdraw this objection.

Claims 1, 37, and 38 stand rejected under 35 USC §112, second paragraph, as being indefinite. Claims 1, 2, and 25 stand rejected under 35 USC §102(b) as anticipated by US Patent 5,434,917 to Naccache et al. It is noted that Applicants suspect that the Examiner probably intends claim 3 (rather than claim 2) be identified in this rejection, since claim 2 has been canceled. Claims 37 and 38 stand rejected under 35 USC §103(a) as unpatentable over Naccache, further in view of US Patent 5,974,150 to Kaish et al.

In paragraph 10 of the Office Action, the Examiner states that the "rejection for claims 1-36 stands", the Office Action fails to include a formal rejection for any claim other than 1, 2, 25, 37, and 38. Therefore, for purpose of this response, Applicants assume that the unlisted claims are intended as rejected by a combination of Naccache, Kaish, and Friedman, as previously applied in the Office Action dated July 30, 2003.

These rejections are respectfully traversed, and Applicants' position is further clarified in view of the following discussion, since the Examiner seems to have misunderstood the significance of the Applicants' arguments in the previous Amendment.

I. THE CLAIMED INVENTION

As described and claimed, for example by claim 1, the present invention is directed to a method of guaranteeing authenticity of an object. A sample is provided of material obtainable only by at least one of chemical and physical processes such that a measurable characteristic of the sample is random and not reproducible. A number is associated reproducibly to the sample by using a specific reader. At least one coded version of the number is formed. The number can optionally be encrypted in combination with further information. The at least one coded version is obtained by a key signature, and the coded version is recorded into an area of the object.

The object includes at least one of a chip having a recording support and positioned on the object and another recording support. The method further includes, to allow for sample-reader combinations such that the number associated to the sample is *only essentially*

reproducible, also recording the number on the object card on the recording support on one of the chip and the other recording support.

The prior art of record fails to provide the recording capability of the original reading on the object. The advantage of this feature of the present invention is that the original reading of the sample allows the calculation of degeneration of the sample and a determination of whether the object, given the calculated degradation, can be considered authentic. Applicants submit that this aspect of the present invention is significant, when Naccache arguably does not accommodate degenerate and Kaish, which seemingly does have at least some suggestion to degeneration, relies upon printing the reading onto the label (e.g., does not incorporate a chip or a memory for recording the original measurement value). Applicants submit that this unique combination of elements of this exemplary aspect of the present invention art is, therefore, a significant contribution to the art.

II. THE 35 USC §112, SECOND PARAGRAPH, REJECTION

Claims 1, 37, and 38 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants believe the above amendment for claims 37 and 38 address the Examiner's concerns. Concerning claim 1, Applicants do not agree with the Examiner that the wording "optionally encrypted" renders the claim indefinite but has addressed the Examiner's concern by eliminating this limitation from the independent claim, in an attempt to expedite prosecution and because it does not seem necessary in order to distinguish from the prior art.

In view of the foregoing, Applicants request that the Examiner reconsider and withdraw this rejection.

III. THE PRIOR ART REJECTION

The Examiner is understood as continuing to allege that US Patent 5,434,917 to Naccache et al. anticipates claims 1-4, 7, 14, 20, 21, and 23-36 and, in combination with US Patent 5,499,294 to Friedman, renders obvious claims 5, 6, and 22, and in combination with US Patent 5,974,150 to Kaish, renders obvious claims 8, 12,19, 37, and 38, and in combination with both Kaish and Friedman, renders obvious claims 9-11, 13, and 15-18.

Applicants respectfully disagree and submit that the rejection currently of record fails to properly address the plain meaning of the claim language, as that language would be understood by one of ordinary skill in the art, and that the Examiner seemingly continues to fail to understand that the differences between the three cited references must be properly considered in attempting to use them as a combination of prior art references for a rejection based on 35 USC §103(a). Finally, Applicants submit that the design details in Naccache are simply too sparsely explained to permit one of ordinary skill in the art to agree with the allegation that this reference anticipates the present invention.

That is, a significant contribution of the present invention is that it describes in depth a concept in which authenticity can be guaranteed whether the characteristics of sample included in the object can be exactly read out by any and all readers used for subsequent authentication or can be read out only essentially by either the original reader and/or subsequent readers. In order to clarify issues for appeal, the Examiner must clarify how Naccache is being interpreted, in view of its sparse disclosure.

Included in the various embodiments of the present invention is a novel combination of providing the capability to carry the original reading of the sample on the object so that this original reading can be compared to a current reading, a current reading that may not be precisely identical to the original reading of the object due to, for example, degeneration of the object. The advantage of this feature is that the sample materials for which the number associated with the sample can be only essentially reproduced as a current reading for the sample. Moreover, a degeneration can be calculated for the sample over time, allowing the possibility of checking whether the degeneration is reasonable over time.

In the rejection in the most recent Office Action, the Examiner is understood as considering that Naccache anticipates claim 1 because, as stated in paragraph 10 on page 5 of the Office Action, the "*Naccache reader is reading from an analog system and converting the reading to digital information thus can be considered essentially reproducible reading due to imprecise nature of converting analog data into digital data.*"

Applicants submit that one of ordinary skill in the art would not agree with the Examiner's statement above. That is, as clearly described at lines 35-36 of column 1 of

Naccache, the random pattern is due to randomly-distributed "*small metal or ferrite particles (eg. steel marbles)*". According to lines 43-45 of column 1, the distribution of these particles is read by "*magnetic induction detectors (reader) that read the distribution of particles as a number p*". At lines 9-12 of column 2, the "... *reader includes detector means - especially a magnetic inductance reader - for detecting the location of the elements from which the distribution value p is generated ....*" Finally, at lines 31-39 of column 3, "*For synchronizing the scanning of the ferrite particles (whatever the insertion speed of the card is), the card can be marked, e.g., at the boundaries, by a sequence of mechanical (embossed or holes) or optical marks. The marks are preferably detected optically by the reader and trigger the scanning of plastic, band by band. The marks can also be based on electromagnetic detection techniques and the triggering of the scanning is done accordingly.*" (Emphasis by Applicants)

Applicants submit that one of ordinary skill in the art would consider this somewhat sketchy description of the detector as being entirely digital in essence. That is, Applicants submit that the description that the marbles are located by detecting whether a marble is located in a band would be interpreted by one of ordinary skill in the art as teaching a reader in which the magnetic inductance detectors merely determine whether a marble is present within a pixel or pixel area. This simple detection of presence of the marbles is not, as characterized by the Examiner, a "... *reader is reading from an analog system and converting the reading to digital information thus can be considered essentially reproducible reading due to imprecise nature of converting analog data into digital data.*" (Emphasis by Applicants) That is, Applicants submit that there is no suggestion in Naccache that the scanning includes the possibility that the marbles are different sizes, so that the magnetic inductance detectors provide an analog indication of size of each marble at each location, in addition to the marble's presence at each respective location.

More specifically, unfortunately, Naccache provides no indication as to how the "distribution number p" is generated. However, Applicants submit that, absent such express description and information on the sensitivity of p with the encoding used in Naccache, if, over time, one or more of the marbles in the card should fall out (e.g., a "degeneration" of the card) or if the magnetic detectors are not calibrated to ensure that all marbles embedded in the matrix are always detected (e.g., rather than "sometimes detected and sometimes not detected"), Naccache

would calculate a different value of p for even one single missing marble, and would be thereby non-functional.

Therefore, Applicants submit that the Examiner has not met the initial burden by characterizing Naccache as being imprecise because it makes a conversion from analog to digital, which conversion the Examiner considers to be inherently imprecise. Applicants submit that the description in Naccache does not support the Examiner's characterization of a conversion from analog to digital that would be inherently imprecise.

Because of this sparsity of detail in Naccache and the explanation above, Applicants submit that the Examiner needs to revisit and update his interpretation of this reference and to further update the status of the claims considered to be anticipated by this reference, prior to proceeding to appeal.

Moreover, it is also pointed out that the purpose of Naccache is to personalize the card to its owner. Therefore, Naccache always includes the owner's ID information, in addition to the scanning result of the sample of steel marbles, into the calculation of the signature. In contrast, the present invention includes any additional information as an option. Thus, Applicants submit that the rejection of record must be revisited to account for this basic difference from the present invention and that this basic difference alone means that Naccache does not anticipate the present invention.

Applicants also submit that one of ordinary skill in the art would not agree with the Examiner that the lines from Naccache, cited by the Examiner on page 4 of the Office Action dated July 30, 2003, suggest, let alone anticipate the limitations described by claims 24 and 26-29, as alleged by the Examiner. The Examiner is respectfully requested to clarify *how* these lines cited from Naccache are being intrepreted by the Examiner and/or could be interpreted as satisfying the claim limitations for these claims by one of ordinary skill in the art.

For purpose of keeping prosecution moving forward, except for changes to address the indefiniteness issue newly-raised by the Examiner, no additional substantive claim changes are made at this time until the Examiner provides a clarification of the interpretation intended for the primary reference Naccache.

Hence, turning to the clear language of the claims, Applicants submit that there is no teaching or suggestion in Naccache of: "... said method further comprising: to allow for sample-reader combinations such that the number associated to said sample is *only essentially reproducible*, also recording said number on said object card on said recording support on one of said chip and said another recording support....", as required by claim 1.

Applicants submit that for this reason alone, claim 1 is clearly patentable over Naccache and that claims 2-32 would be also be patentable, even if for no reason other than dependency.

However, it is also requested that the Examiner further clarify on the record the propriety of the motivation to modify the primary reference Naccache with either or both of the secondary references, Kaish and Friedman. Applicants submit that the motivations currently of record are improper, as follows.

First, relative to modifying Naccache in accordance with one or more aspects of Friedman, the Examiner is understood as considering that Naccache fails to teach or suggest the claim limitations of claims 5, 6, and 22, and that Friedman is properly combinable with Naccache and would overcome these deficiencies conceded as missing in Naccache.

Second, relative to modifying Naccache in accordance with one or more aspects of Kaish, the Examiner is understood as considering that Naccache fails to teach or suggest the claim limitations of claims 8, 12, 19, 37, and 38, and that Kaish is properly combinable with Naccache and would overcome these deficiencies.

Third, relative to claims 9-11, 13, and 15-18, the Examiner is understood that both Kaish and Friedman are required to teach the claim limitations.

Applicants submit that the rejection currently of record fails to meet the initial burden of a *prima facie* rejection, as clearly stated by the evaluation guidelines in the MPEP, as follows.

First, it is pointed out that MPEP §2141.02 clearly states the following very basic evaluation guideline: "*In determining the differences between the prior art and the claims, the question under 35 U.S.C.103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious*" (emphasis in MPEP itself).

This guideline reflects the well established concept in patentability evaluation that a new invention may "merely" be a new and different combination of known elements.

Second, it is pointed out that MPEP §2143.01 states another guideline: "*The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination*" (emphasis in MPEP itself).

Along these lines, Judge Rader wrote in the recent Federal Circuit Court of Appeals holding in *Ruiz v. A.B. Chance Co.*, Federal Cir., No. 03-1333, January 29, 2004:

> *"In making the assessment of differences, section 103 specifically requires consideration of the claimed invention "as a whole." Inventions typically are new combinations of existing principles or features. Envtl. Designs, Ltd. v. Union Oil Co., 713 F.2d 693, 698 (Fed. Cir. 1983) (noting that "virtually all [inventions] are combinations of old elements."). The "as a whole" instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result - often the very definition of invention."* (Emphasis by Applicants)

Although the holding in that case left undisturbed, under the "clear error" standard of review, the conclusion of the District Court that the prior art references were properly combinable, it specifically explained that it declined to reverse this conclusion because "... the two references address precisely the same problem ... " (emphasis by Applicants)

This aspect of the *Ruiz* holding, in which precisely the same problem is being addressed by both references, is not present in the Friedman references *vis a vis* Naccache and Kaish. That is, in Friedman, the problem addressed is that of ensuring that copies represented as being identical to the original photograph are identical cloned copies (e.g., someone has not modified a copy of the original photograph). In contrast, in both Naccache and Kaish, the problem presented is that of ensuring that no clones can be made of the original.

Relative to Kaish and Naccache, Applicants submit that Kaish is not properly combinable with Naccache for at least two reasons. First, as pointed out above, Naccache is understood as

being based on a precisely repeatable digital calculation of the locations of the steel marbles, whereas Kaish is based upon an inherently imprecise determination of the characteristic of the threads. The Examiner would not be justified to simply take elements in isolation out of two inherently different environments.

Second, Kaish addresses applying randomly-organized threads to labels that do not incorporate electronic chips as in Naccache. Therefore, in Kaish the result of the initial reading is affixed to the label as a visual identification number of some sort. That is, Kaish specifically teaches against using a recording embedded *in* the object, as is done in Naccache. Again, Judge Rader's statements recited above suggests that the Examiner is not entitled to use the claims as a roadmap to choose which of the contradicting elements of various references will be extracted to combine with the primary reference in order to reconstruct the claimed invention.

Third, it is pointed out that MPEP §2143.01 clearly states a third guideline:

> "*If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious.*"

Therefore, Applicants submit that the Examiner's motivation to combine Kaish with Naccache, as alleged in Paragraphs 7 and 8 on page 4 of the Office Action dated January 12, 2004, "*... to include these features to provide aid in obtaining a legal remedy in the case of simply copying said object ...* ", would not be proper, since the plastic card of Naccache is intended as addressing the problem of preventing a copy of the plastic card itself and arguably has no application in preventing a copy of a separate, independent copyrighted document. Therefore, Applicants submit that the obviousness rejection for claims 37 and 38 does not meet the initial burden of a rejection, under the above guideline(s).

Finally, it is noted that the rationale of the rejection currently of record is merely circular reasoning (i.e., a conclusory statement of the result), as follows:

"The motivation to modify reference A to incorporate missing element B (found in reference C) is because one would thereby obtain the benefit of having incorporated missing element B".

Applicant submits that avoidance of this circular reasoning is exactly the reason for requiring that obviousness be based on an objective standard that the prior art references

themselves make the suggestion, rather than merely a conclusory statement that one would be motivated to make the combination in order to get the benefit of having made the combination.

Using the approach of the current rejection, everything would be rendered obvious, since any modification would become obvious because the modification would provide the benefit of having made the modification.

For the reasons stated above, the claimed invention is fully patentable over the cited references.

Further, the other prior art of record has been reviewed, but it too, even in combination with Naccache, Kaish, or Friedman, fails to teach or suggest the claimed invention.

IV. FORMAL MATTERS AND CONCLUSION

The Examiner also objected to the specification because cross references were missing on pages 1 and 52 and numbers related to Figures 3 and 4 do not match the labels on the figures. Applicants have amended the specification above to incorporate the cross references and expect to file amended drawings shortly to address the drawing inconsistencies.

In view of the foregoing, Applicant submits that claims 1, 3, 4, and 7-38, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 09-0441.

Respectfully Submitted,

Date: 3/16/04

Frederick E. Cooperrider
Reg. No. 36,769

McGinn & Gibb, PLLC
8321 Old Courthouse Road, Suite 200
Vienna, Virginia 22182
(703) 761-4100
Customer No. 21254

CERTIFICATION OF TRANSMISSION

I certify that I transmitted via facsimile to (703) 872-9306 this Amendment under 37 CFR §1.116 to Examiner Mossadeq Zia on March 16, 2004.

3/16/04

Frederick E. Cooperrider
Reg. No. 36,769